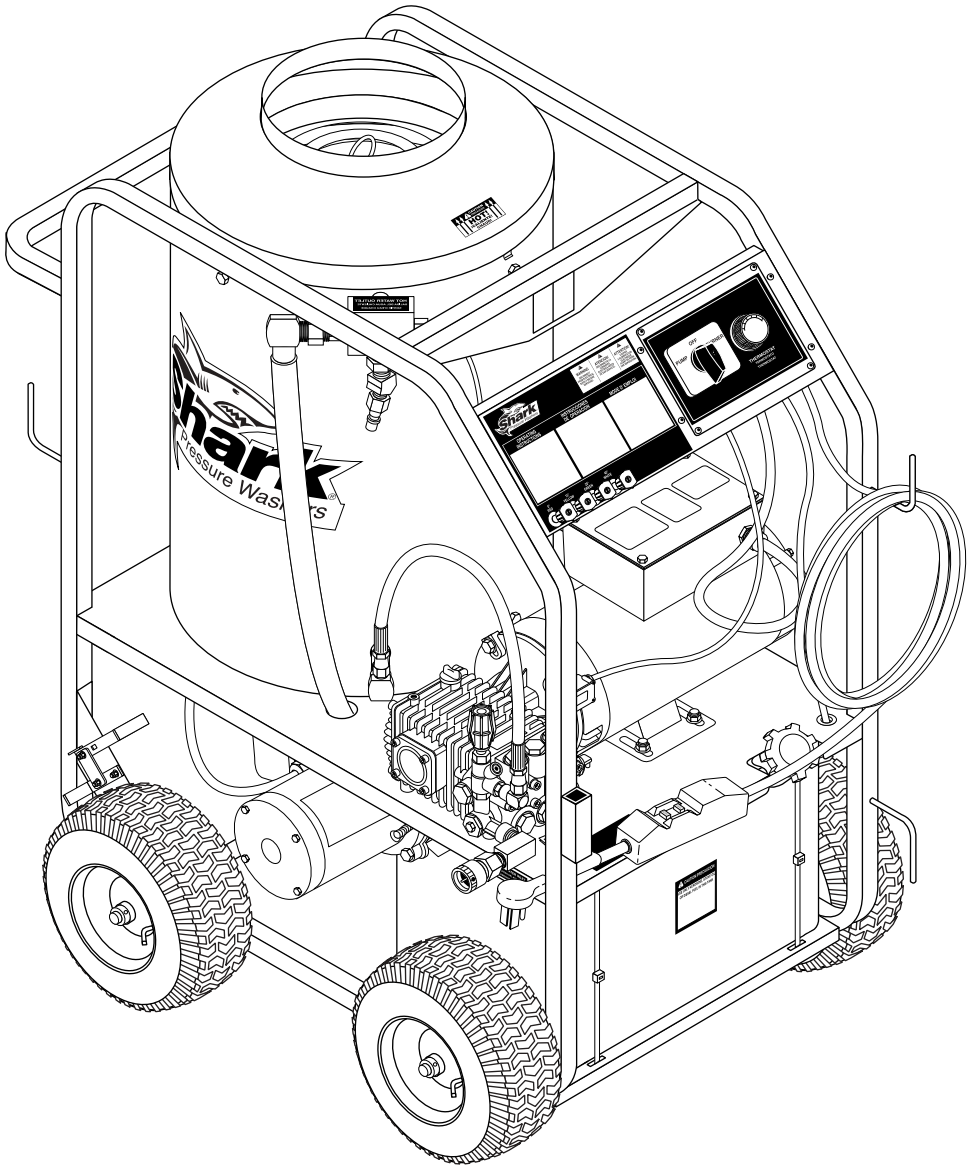
MODEL: STP

OPERATING INSTRUCTION AND PARTS MANUAL

■ **STP-2015** ■ **STP-2310** ■ **STP-3520**



For technical assistance or the SHARK dealer nearest you, call 1-479-750-4475, 1-800-771-1881 or visit our website at **www.shark-pw.com**

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- **Pump Volume At Pump Head:**
  - **STP-2015** 1.9 GPM
  - **STP-2310** 2.1 GPM
  - **STP-3520** 3.5 GPM

- **Pump Pressure At Pump Head:**
  - **STP-2015** 1500 PSI
  - **STP-2310** 1000 PSI
  - **STP-3520** 2000 PSI

- **Machine Voltage:**
  - **STP-2015** 120V/1PH
  - **STP-2310** 120V/1Ph
  - **STP-3520** 230V/1Ph

- **Total Machine Amperage:**
  - **STP-2015** 20 Amps
  - **STP-2310** 15 Amps
  - **STP-3520** 22 Amps

- **Shipping Weight:**
  - **STP-2015** 330 Lbs.
  - **STP-2310** 330 Lbs.
  - **STP-3520** 340 Lbs.

- **Machine Dimensions:**

STP-2015	Length = 39"	Width = 27"	Height = 44"
STP-2310	Length = 39"	Width = 27"	Height = 44"
STP-3520	Length = 39"	Width = 27"	Height = 44"

SERIAL NUMBER:
DATE PURCHASED:
FOR SALES AND SERVICE, PLEASE CONTACT:

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INTRODUCTION

Thank you for purchasing a STP.

This manual covers the operation and maintenance of the STP Series pressure washers. All information in this manual is based on the latest product information available at the time of printing.

We reserve the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

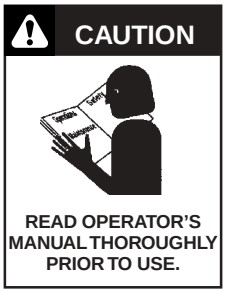
The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number.

IMPORTANT SAFETY INFORMATION



CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

   To comply with National Electrical Code (NGPA 70) and provide additional protection from risk of electric shock, this hot water converter is equipped with a UL approved ground fault circuit interrupter (GFCI) power cord.

WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.

WARNING: Do not use gasoline, crankcase drainings or oil containing gasoline, solvents or alcohol. Doing so will result in fire and/or explosion.

WARNING: Do not spray flammable liquids. Operate only where an open torch is permitted.

3. This fuel burning machine shall be installed only in locations where combustible dusts and flammable gases or vapors are not present.
4. In these oil burning models, use only kerosene, No.1 home heating fuel, or diesel fuel.

WARNING: Keep water spray, wand and high pressure hose away from electrical wiring or fatal electric shock may result. Read warning tag on electrical cord.

5. To protect the operator from electrical shock, the machine must be electrically grounded. It is the responsibility of the owner to connect this machine to a UL grounded receptacle of proper voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.

CAUTION: Spray gun kicks back — hold with both hands.

6. Grip cleaning wand of attached pressure washer securely with both hands before starting cleaner. Failure to do this could result in injury from a whipping wand.

WARNING: High pressure stream of fluid that this equipment can produce can pierce the skin and its underlying tissues, leading to serious injury and possible amputation.

7. High pressure developed by the attached pressure washer can cause bodily injury or damage. Use caution when operating. Do not point the spray gun at anyone or at any part of the body. This machine is to be used only by qualified operators.
8. Never make adjustments on machine while it is in operation.

WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds.

9. Eye safety devices must be worn when using this equipment.

WARNING: Risk of asphyxiation — Use this product only in a well ventilated area.

10. When the machine is working, do not cover or place in a closed space where ventilation is insufficient.

WARNING: Risk of fire. Do not add fuel when the machine is operating or still hot.

11. Machines with a spray gun should not be operated with the spray gun in the off position for extended periods of time as this may cause damage to the pump. Check to make sure burner shuts off when spray gun trigger is closed.
12. Protect from freezing.
13. To prevent a serious injury, make certain quick coupler on discharge hose has locked before using pressure washer.
14. Do not allow acids, caustic or abrasive fluids to pass through the pump.
15. Inlet water must be cold and clean fresh water.
16. Do not allow CHILDREN to operate the pressure washer at any time. **THIS MACHINE MUST BE ATTENDED DURING OPERATION.**
17. The best insurance against an accident is precaution, and knowledge of the machine.
18. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.
19. We will not be liable for any changes made to our standard machines, or any components not purchased from us.
20. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
21. Follow the maintenance instructions specified in the manual.
22. When making repairs disconnect from electrical source.
23. Turn burner off and open spray gun to allow water to flow and cool coil to 100°F before turning machine off.
24. Before disconnecting high pressure hose from hot water outlet, turn off burner to allow water to cool to 100°F, then turn off pump motor and water supply and operate spray gun to relieve back pressure in hose. This will prevent coil damage from thermal expansion.

CAUTION: This machine produces hot water and must have insulated components attached to protect the operator.

INSTALLATION

Place machine in a convenient location providing ample support, draining and room for maintenance.

This machine is intended for indoor use. Machine must be stored indoors when not in use.

Location:

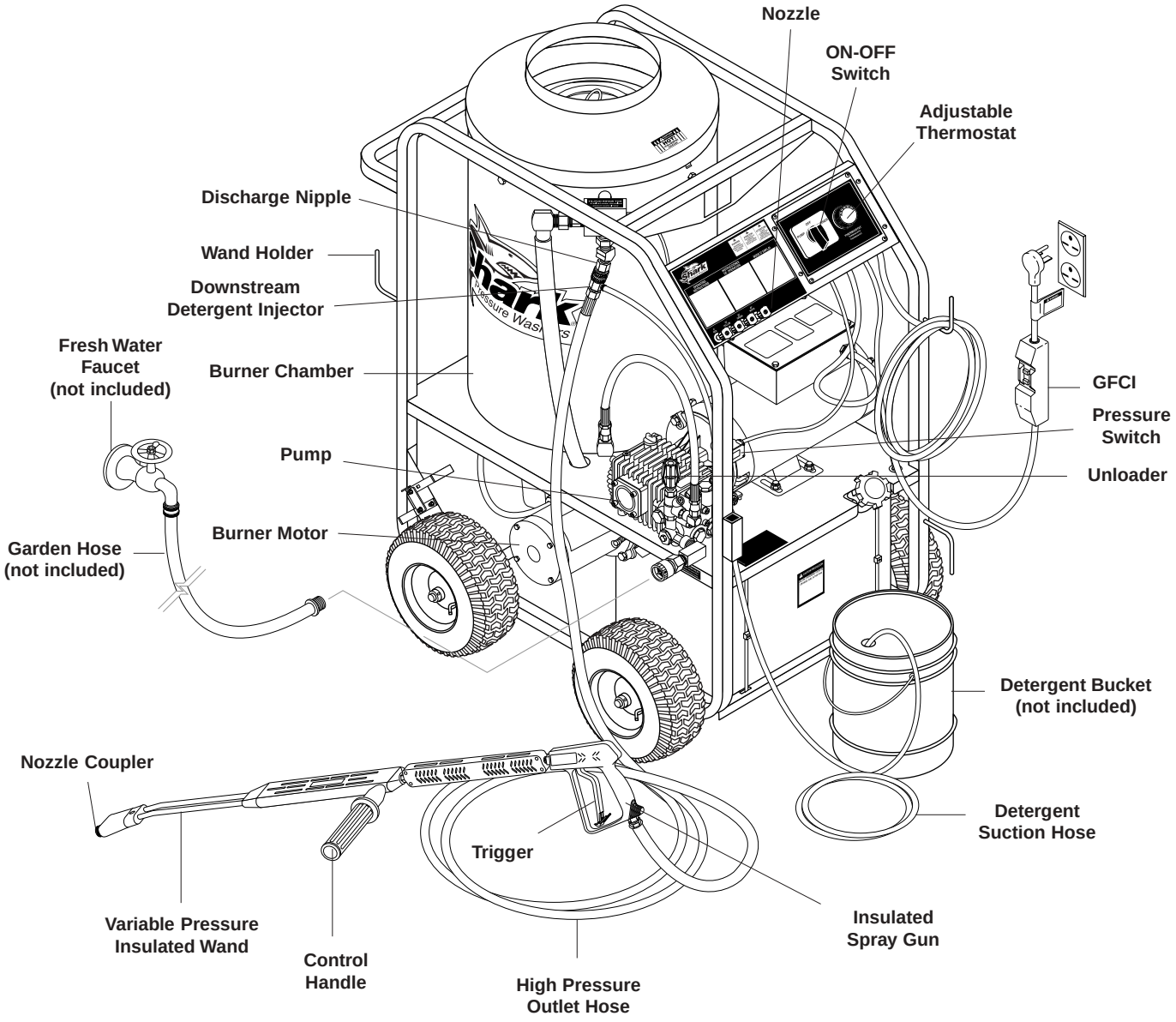
The location should protect the machine from damaging environmental conditions, such as wind, rain, and freezing.

1. This machine should be run on a level surface where it is not readily influenced by outside sources such as strong winds, freezing temperatures, rain, etc. It should be located to allow accessibility for refilling of fuel, adjustments and maintenance. Normal precautions should be taken by the operator of the machine to prevent moisture from reaching the electrical controls.
2. It is recommended that a partition be made between the wash area and the machine to prevent water spray from coming in contact with the machine. Excess moisture reaching any electric components or electrical controls will reduce machine life and may cause electrical shorts.
3. During installation of the machine, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Sufficient combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned. If it is necessary to install a machine in a poorly ventilated area, outside fresh air may have to be piped to the burner and a fan installed to bring air into the machine.

Avoid small locations or areas near exhaust fans.

COMPONENT IDENTIFICATION

CAUTION HOT WATER:
Must use insulated spray gun and wand.



Electrical:

This machine, when installed, must be electrically grounded in accordance to local codes. Check for proper power supply using a volt meter.

Placement:

Do not locate near any combustible material. Keep all flammable material at least 20 feet away.

Allow enough space for servicing the machine.

Local code will require certain distances from floor and walls. (Two feet away from walls should be adequate.)

Water Source:

The water source for the pressure washer should be supplied by a minimum 5/8" I.D. garden hose with a city water pressure of not less than 30 PSI. If the water supply is inadequate, or if the garden hose is kinked, the attached pressure washer will run very rough and the burner will not fire.

Connection:

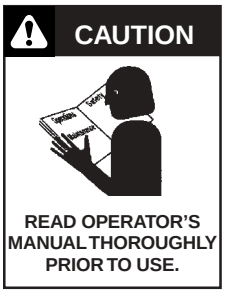
Connect the wand, nozzle, hose and spray gun (where applicable). On pipe thread connections, use teflon tape to avoid water leaks. (See Component Identification).

Venting:

Adding exhaust vent pipe to your oil fired burner is not recommended because restricted air flow causes carbon buildup, which affects the operation, and increases maintenance on the coil. If a stack must be used, refrain form using 90° bends. If the pipe can not go straight up then use only 45° bends and go to the next size pipe. The overall pipe length must not exceed 6 feet in length.

STARTING AND OPERATING INSTRUCTIONS

To Start:



1. **STOP!** Read operator's manual before operating. Failure to read operation and warning instructions may result in personal injury or property damage.
2. Connect water supply hose and turn on water.
3. Check fuel tank and pump oil levels.
4. Connect high pressure hose to discharge nipple by sliding quick coupler collar back. (If detergent is to be applied, insert a detergent injector as shown in Component Identification).
5. Insert quick coupler onto discharge nipple and secure by pushing quick coupler collar forward.
6. Securely attach the desired high pressure nozzle into wand coupler as described in steps 4 and 5.
7. Connect the power cord into the proper electrical outlet, then push in the GFCI reset button (Refer to serial plate for information.)
8. Grip spray gun handle securely and pull trigger. Then turn variable pressure control handle counterclockwise.
9. Turn switch to pump position. When a steady stream of water flows from the spray gun and wand, the machine is ready for cold water cleaning by turning the variable pressure control handle clockwise to raise the pressure.
10. For hot water washing, turn the switch to the burner position. (The burner will light automatically when the trigger on the spray gun is pulled.)

To Stop:

1. If using the detergent injector, place the suction line in a bucket of water allowing detergent to be flushed from system.
2. Turn STP burner switch off and continue spraying water, allowing the water to cool.
3. After water has cooled to less than 100°F, turn the attached pressure washer off.
4. Turn garden hose water off. Open the spray gun to relieve remaining pressure.
5. Protect from freezing.

HOW TO USE THE DETERGENT INJECTOR

⚠ WARNING

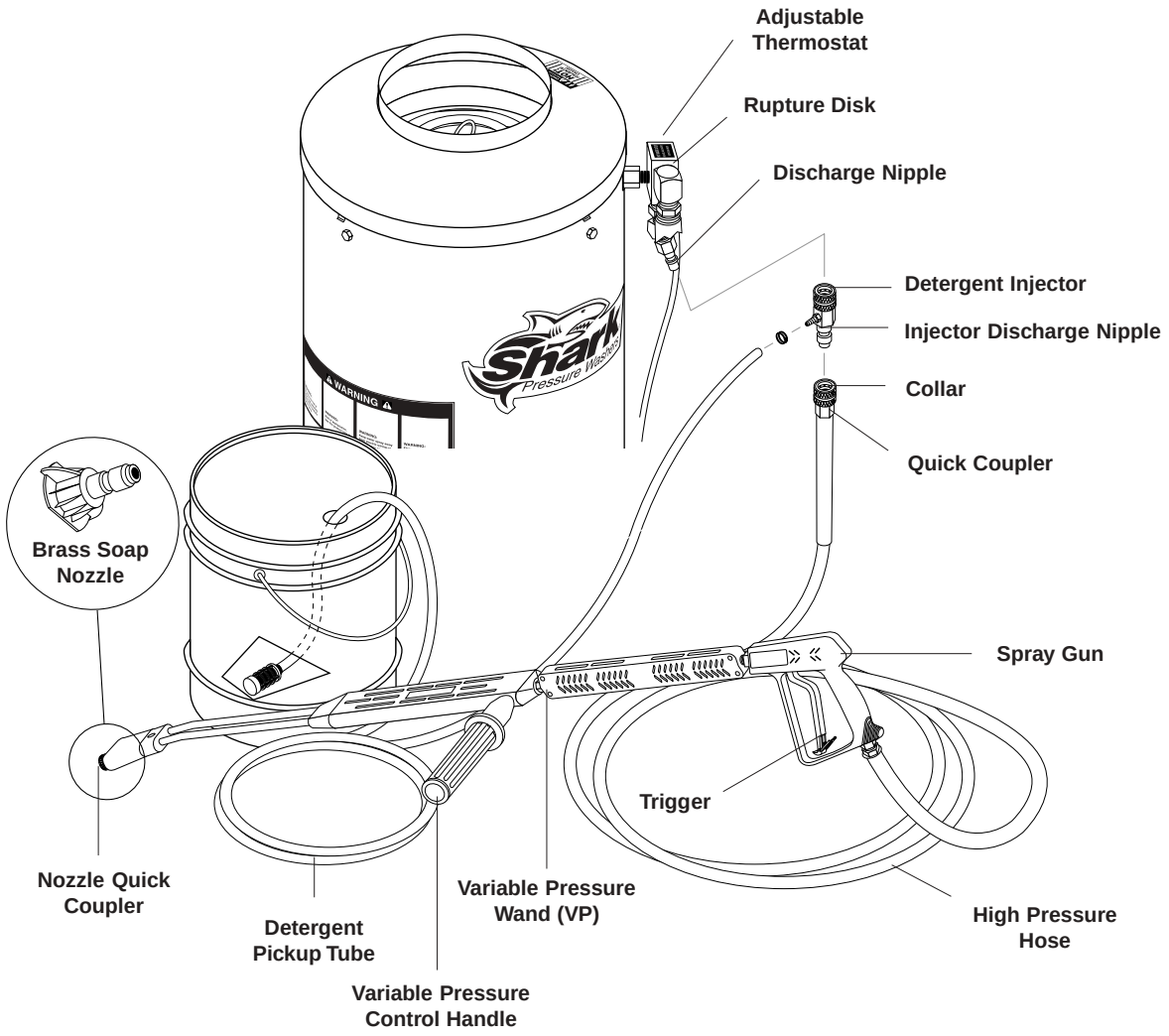
SOME DETERGENTS MAY BE HARMFUL IF INHALED OR INGESTED.

WARNING: Some detergents may be harmful if inhaled or ingested causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.

The machine can siphon and mix detergents with the use of Shark's detergent injector kit.

1. Pull injector quick coupler collar back and secure on discharge nipple. Injector valve body arrow should point in direction of flow.
2. Connect high pressure hose to injector nipple securing quick coupler.
3. Start machine as outlined in Operating Instructions.
4. Place detergent pick-up tube into container of detergent solution.
5. Turn pressure control handle counterclockwise on the variable pressure wand. This lowers the pressure by directing the water flow through the soap nozzle and allows the detergent injector to siphon soap.
6. Open trigger spray gun. Water detergent ratio is approximately 15 to 1.
7. When you finish washing, rinse by simply turning the variable pressure wand control handle clockwise to increase pressure.

   NOTE: The detergent injector will not siphon with water flowing through the high pressure nozzle at the end of the wand.
8. For clean up, place detergent pick-up tube into container of clear water and follow steps 5 and 8 to prevent detergent deposits from damaging the injector.



PREVENTATIVE MAINTENANCE

1. Use clean fuel - kerosene, No. 1 home hearing fuel or diesel fuel. Clean or replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will seize up the fuel pump. De-soot coils monthly. Use an additive if diesel is being used.
2. Check to see that the attached pressure washer water pump is properly lubricated.
3. Follow Winterizing Procedures to prevent freeze damage to pump coils.
4. Always neutralize and flush detergent from system after use.
5. If water is known to be high in mineral content, use a water softener in your water system or de-scale as needed.
6. Do not allow acidic, caustic or abrasive fluids to be pumped through system.
7. Always use high grade quality cleaning products.
8. Never run pump dry for extended periods of time.
9. If machine is operated with smoking or eye burning exhaust, coils will soot up, not letting water reach maximum operating temperature. (See section on Air Adjustments.)
10. Never allow water to be sprayed on or near engine or burner assembly or any electrical component.
11. Periodically delime coils per instructions.

It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep this equipment clean and dry.

The areas around the Shark washer should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids.

The flow of combustion and ventilating air to the burner must not be blocked or obstructed in any manner.

MAINTENANCE AND SERVICE

Unloader Valves:

Unloader valves are preset and tested at the factory before shipping. Occasional adjustment of the unloader may be necessary to maintain correct pressure. Call your local dealer for assistance.

Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever washer must be stored or operated outdoors under freezing conditions. During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary. Store machine in a heated room. If this is not possible then mix a 50/50 solution of anti-freeze/water into a 5 gallon bucket. Place a short section of garden hose into bucket and connect it to machine. Elevate bucket and turn pump on to siphon anti-freeze through machine. If compressed air is available, an air fitting can be screwed into the inlet connector and, by injecting compressed air, all water will be blown out of system.

High Limit Hot Water Thermostat:

For safety, each machine is equipped with a high limit control switch. In the event that the temperature of the water should exceed its operating temperature, the high limit control will turn the burner off until the water cools.

Pumps:

Use only SAE 30W non-detergent oil. Change oil after the first 50 hours of use. Thereafter, change the oil every three months or at 500 hour intervals. Oil level should be checked by using the dipstick found on top of the pump or the red dot visible through the oil gauge window. Oil should be maintained at that level.

Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the coil pipes. This growth is increased by the extreme heat build up in the coil. The best prevention for liming conditions is to use high quality cleaning detergents. In areas where alkaline water is an extreme problem, periodic use of Shark Deliming Powder (part #9-028008) will remove lime and other deposits before coil becomes plugged. (See Deliming Instructions for use of Shark Deliming Powder.)

Deliming Coils:

Periodic flushing of coils is recommended.

1. Fill a container or optional float tank with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly.
2. Remove wand assembly from spray gun and put spray gun into container. Secure the trigger on the spray gun into the open position.
3. Attach a short section (3-5 ft.) of garden hose to machine to siphon solution from an elevated container. Turn pump switch on, allowing solution to be pumped through coils back into the container. Solution should be allowed to circulate 2-4 hours.
4. After circulating solution flush entire system with fresh water. Reinstall wand assembly to spray gun.

Removal of Soot in Heating Coil:

In the heating process, fuel residue in the form of soot deposits may develop between the heating coil pipe and block air flow which will affect burner combustion. When soot has been detected on visual observation, the soot on the coil must be washed off after coil has been removed using the following steps:

1. Remove the tank head assembly by lifting the tank head off.
2. Remove the two pipe nipples and associated fittings.
3. Lift the coil out of the outer wrap.

CAUTION: the coil weighs about 80 lbs. Use proper lifting techniques.

4. Clean, repair and replace the coil by reversing the above steps.

Coil Reinstallation

Reinstall by reversing the above steps 4 through 1.

Rupture Disk

If pressure from pump or thermal expansion should exceed safe limits, the rupture disk will burst, allowing high pressure to be discharged through hose to ground. When the disk ruptures, it will need to be replaced.

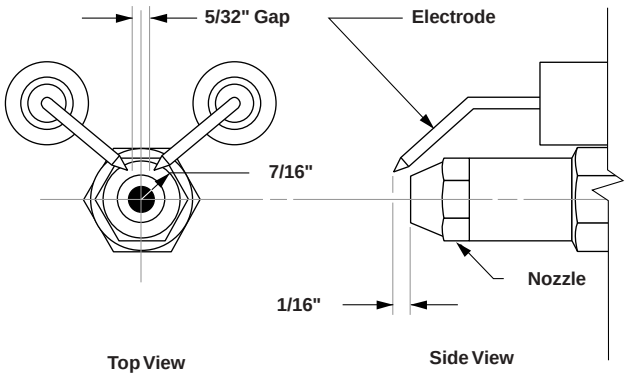
Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation. Use Kerosene No. 1 or No. 2 Heating Fuel (ASTM D306) or diesel only. **NEVER** use gasoline in your burner tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.

Ignition Circuit:

Periodically inspect wires, spring contact and electrodes for condition, security and proper spacing. **For transformer test (CAUTION 10,000 VOLTS)** use defect free insulated screwdriver and keep fingers off blade! Lay blade across one contact: OK if arc will span 1/2" between end of blade and other contact (see following illustration).

Electrode Setting: Beckett



Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent-saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season.

Fuel Control System:

The STP utilizes a fuel solenoid valve located on the fuel pump to control flow of fuel to the combustion chamber. This solenoid is activated by a pressure switch located on the unloader valve. When an operator releases the trigger on the spray gun, the pressure drops, allowing the pressure switch to activate the fuel solenoid. The solenoid then closes, shutting off the supply of fuel to the combustion chamber. Controlling the flow of fuel in this way gives an instantaneous burn or no burn situation, thereby eliminating high and low water temperatures, and combustion smoke normally associated with machines incorporating a spray gun. Periodic inspection is recommended to insure that the fuel solenoid valve functions properly. This can be done by operating the machine and checking to see that when the trigger on the spray gun is in the off position, the burner is not firing.

Fuel Pressure Adjustment:

To adjust fuel pressure, turn the adjusting screw with a screwdriver (located on the fuel pump) clockwise to increase, counterclockwise to decrease. Do not exceed 200 PSI.

Air Adjustment

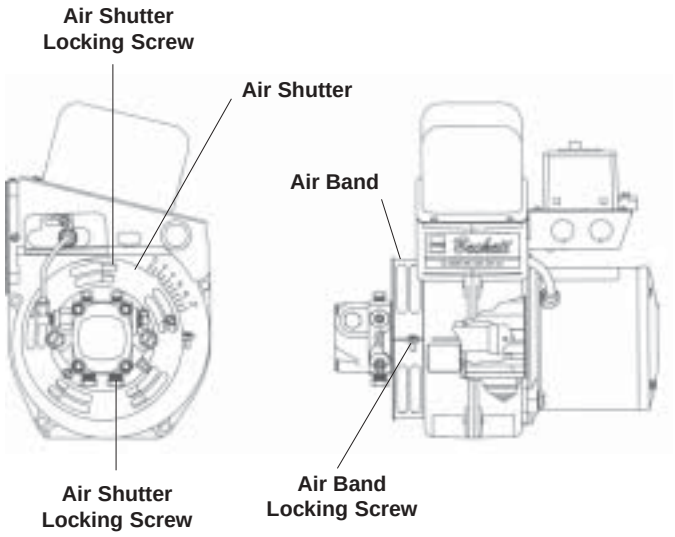
Machines are preset and performance tested at the factory — elevation 100' above sea level. A one time correction for your location will pay off in economy, performance and extended service life. If a smoky or eye-burning exhaust is being emitted from the stack, two things should be checked.

First, check the fuel to be certain that kerosene or No. 1 home heating fuel is being used.

Next, check the air adjustment on the burner. An oily, black, smoky fire indicates a lack of air and the air band should be moved to allow the air to flow through the burner. Sharp, eye-burning fumes indicate too much air flowing through the combustion chamber. The air band should be moved to allow less air to flow through the burner.

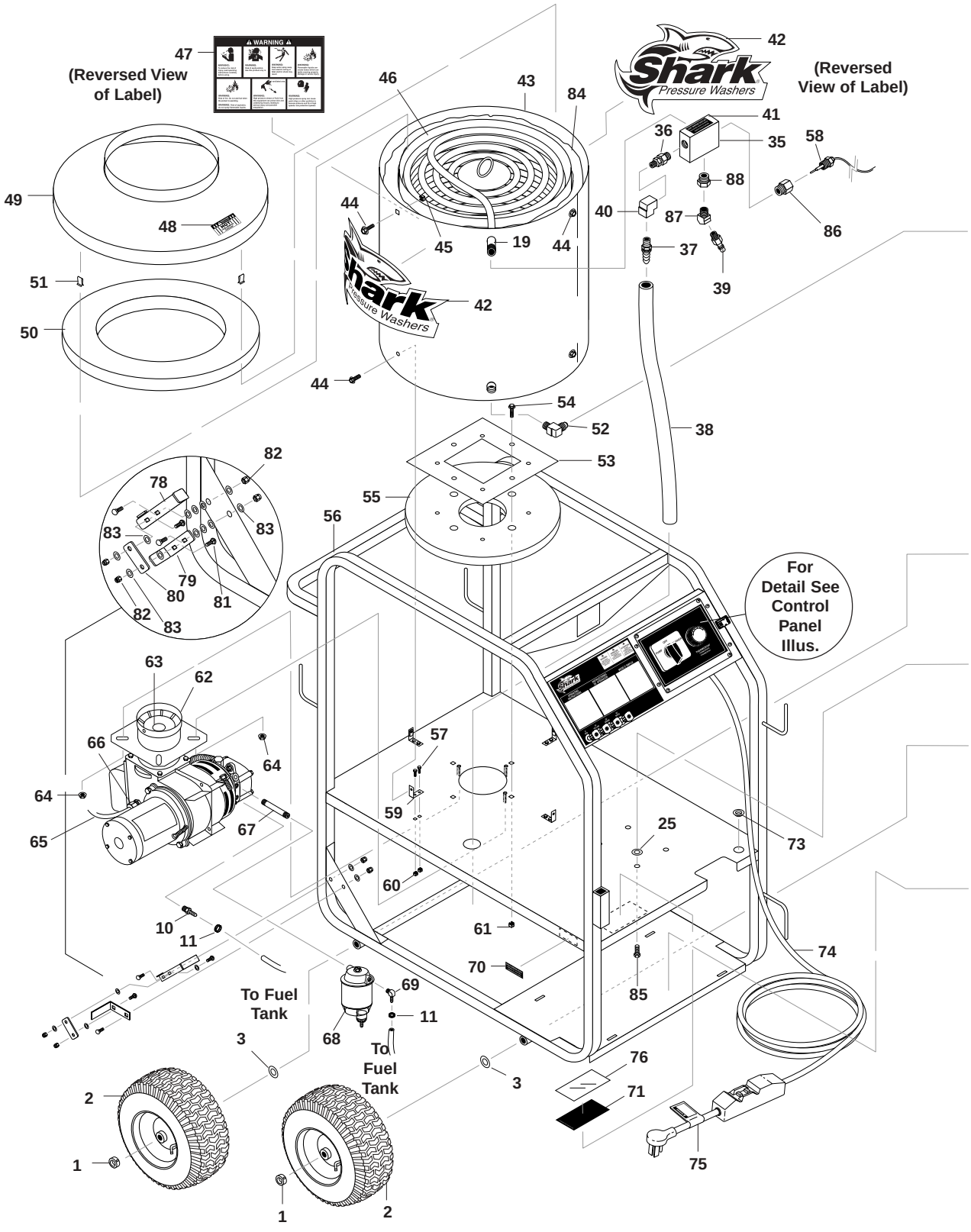
To adjust: Start the machine and turn burner ON. Loosen two locking screws found in the air shutter openings (refer to illustration) and close air shutter until black smoke appears from burner exhaust vent. Note air band position. Next slowly open the air shutter until white smoke just starts to appear. Turn air shutter halfway back to the black smoke position previously noted. Tighten locking screws.

FUEL AIR ADJUSTMENT

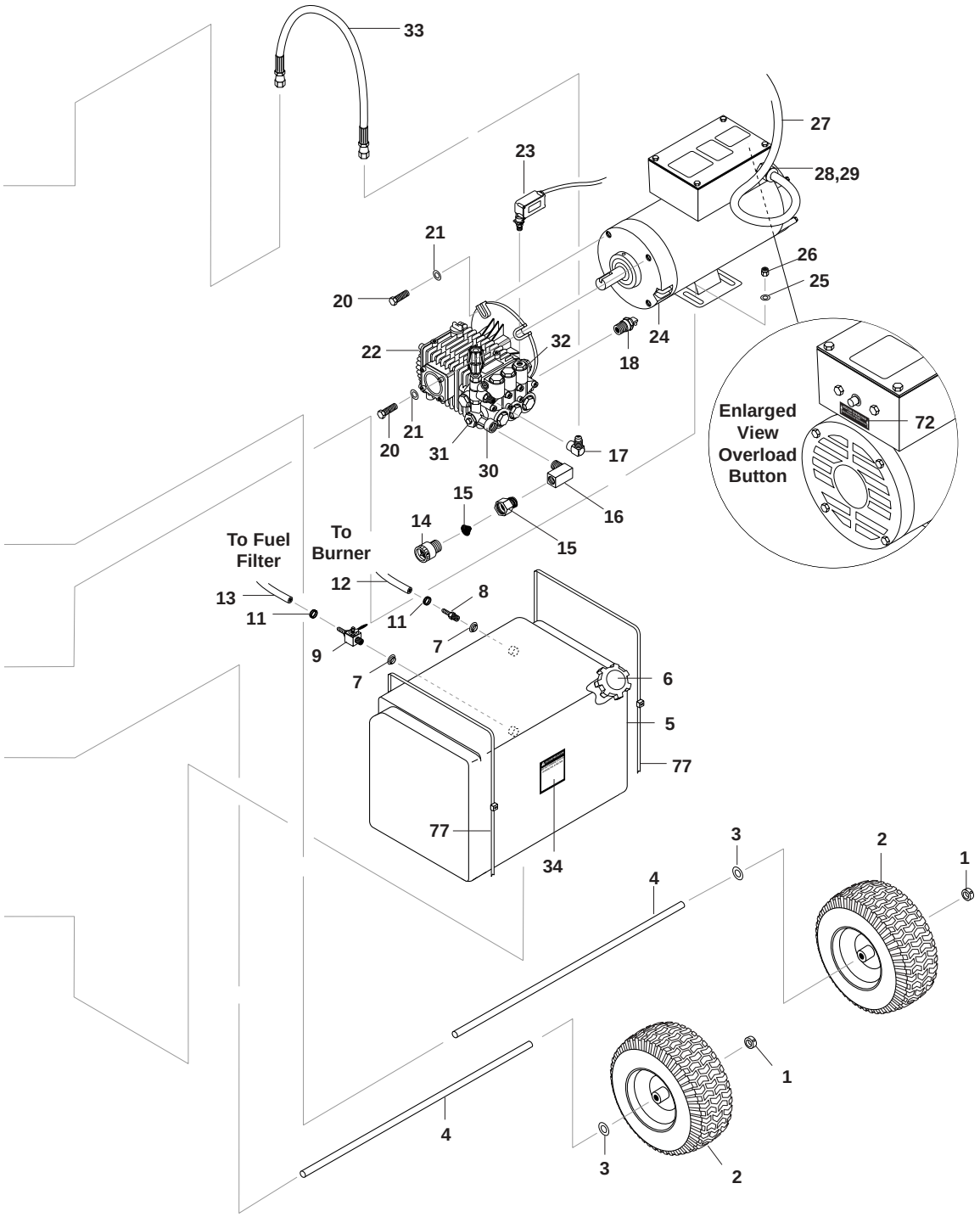


If the desired position cannot be obtained using only the air shutter, lock the air shutter in as close a position as can be obtained, then repeat the above procedure on the air band setting.

STP SERIES
EXPLODED VIEW LEFT SIDE



STP SERIES
EXPLODED VIEW RIGHT SIDE



STP SERIES
EXPLODED VIEW PARTS LIST

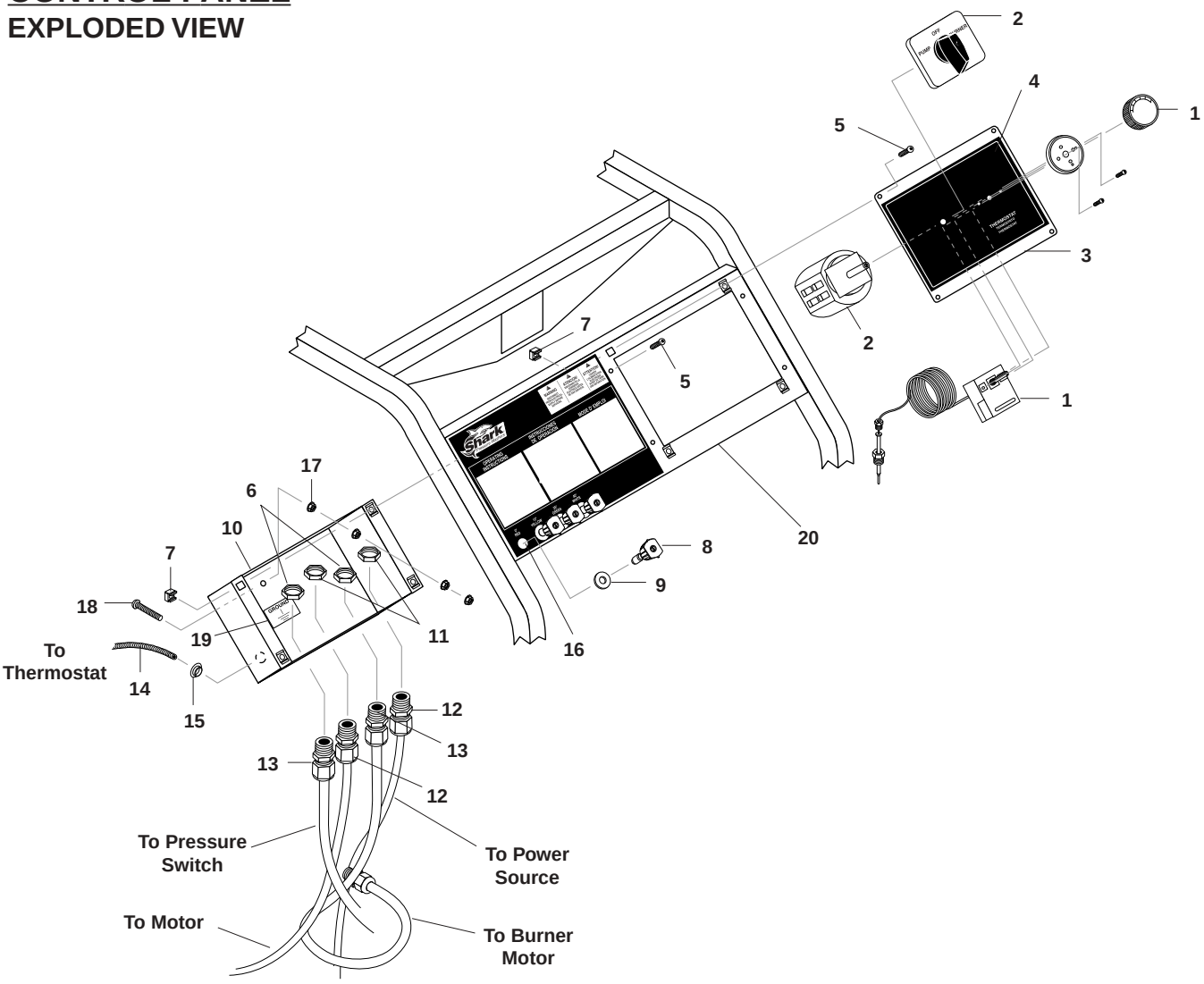
ITEM	PART NO.	DESCRIPTION	QTY
1	90-20041	Collar, 5/8" Bore Shaft (3010)	4
2	4-0307	Wheel & Tire Assy, 6" Steel Rim w/Tube	4
3	90-4005	Washer, 5/8", Flat, SAE	4
4	95-07104723	Axle, Rod 5/8" x 27.80" L	2
5	2-0115090	Tank, Fuel 6 Gallon Blank	1
6	2-01167	Cap, Fuel Tank, Plastic H60-AV	1
7	2-010061	Bushing, Rubber, Nitrile	2
8	2-10866	Hose Barb, 1/4" Barb x 3/8" Barb, Double	1
9	2-30057	Valve, 1/4" Shut-Off	1
10	2-1085	Hose Barb, 1/4" Barb x 1/4" ML Pipe	1
11	2-9040	Clamp, Hose, UNI .46 - .54	4
12	4-02100000	Hose, 1/4" Push-On, Fuel Line	11"
13	4-02100000	Hose, 1/4" Push-On, Fuel Line	7"
14	2-30062	Valve, Anti-Siphon, Watts 8B	1
15	2-10942	Swivel, 1/2" MP x 3/4" GHF w/Strainer (Legacy)	1
	2-10943	Swivel, 3/8" MP x 3/4" GHF w/Strainer (General)	1
16	2-1024	Elbow, 1/2" Street, Brass (Legacy)	1
	2-1023	Elbow, 3/8", Street (General)	1
17	2-00601	Elbow, 1/2" JIC x 3/8" Fem, 90°	1
18	2-30082	Pump Protector, 1/2" PTP (Legacy)	1
	2-300816	Pump, Protector, 3/8" PTP (General)	1
19	2-000891	Nipple, 1/2" x 2-1/2", Galvanized SCH 80	1
20	90-1016	Bolt, 3/8" x 1", NC HH	4
21	90-4002	Washer, 3/8" SAE, Flat	4
22	5-1614	Pump, Legacy WMH-2021 (231007, 201507)	1
	5-1621	Pump, Legacy WMH-2035-F (352007)	1
	5-23003	Pump, General T-9051-EBF (231001, 201501)	1
	5-2303	Pump, General, TT-2035 EBF (352001)	1

ITEM	PART NO.	DESCRIPTION	QTY
23	6-021720	Switch, Pressure, N/O, 1/4" NPT SS	1
24	5-1004M	Motor, 1.5 HP 115V 1725 RPM (2310)	1
	5-1073	Motor, 2HP 1PH 115V 1725 RPM (2015)	1
	5-1053	Motor, 5HP 1PH 230V 3450 RPM (3520)	1
25	90-4001	Washer, 5/16" Flat, SAE	8
26	90-2001	Nut, 5/16" ESNA, NC	4
27	6-0104	Cord, Service, SOWA, 12/3 (2310, 2015)	2.75 ft.
	6-0108	Cord, Service, SEO, 10/3 (3520)	2.75 ft.
28	6-05152	Strain Relief, Small (2015)	1
	6-051595	Strain Relief, STRT LQ TITE (2310, 3520)	1
29	6-05181A	Locknut, 1/2" (2015,)	1
	6-05181B	Locknut, 3/4" 8465(2310, 3520)	1
30	5-3151	Unloader, APR.S 3000, 5.3 @ 3000 (352007)	1
	5-3024	Unloader, PA 6.5 GPM @ 2600 (231001, 201501, 352001)	1
	5-3150	Unloader, APR.S 2300, 5.3 @ 2300 (231007, 201507)	1
31	2-1046	Plug, 1/4" Countersunk (231007, 201507, 352007)	1
	2-1044	Plug, 1/8" Countersunk (231001, 201501, 352001)	1
32	15-070042532	Cap, Valve with 1/4" Gauge Port w/O-Ring (231007, 201507, 352007)	1
	1-190031	Cap, Valve, with 1/4" Gauge Port (231001, 201501, 352001)	1
33	4-02047725	Hose, 3/8" x 25", 2 Wire, Pressure Loop	1
34	10-020110	Label, Use Only Kerosene	1
35	95-07101226	Block, Discharge, 1/2" x 1/2", Brass	1
36	2-3409	Disk, Rupture Assy, 7000 PSI	1
37	2-1108	Hose Barb, 1/2" Barb x 3/8" MPT, Push-On	1
38	4-02110000	Hose, 1/2" Push-On	2 ft.
39	2-2007	Nipple, 3/8" x 3/8" NPT ST Male	1
40	2-1019	Elbow, 3/8" Female	1

STP SERIES
EXPLODED VIEW PARTS LIST (CONTINUED)

ITEM	PART NO.	DESCRIPTION	QTY
41	10-09004	Label, Hot Water Outlet	1
42	11-013	Label, Shark Logo Die Cut	2
43	95-07102249	Wrap, Outer Coil, Red	1
44	90-19710	Screw, 1/4" x 3/4" HH NC, Whiz Loc	8
45	90-2022	Nut, Cage, 1/4" x 16 Gauge	4
46	95-07102310	Coil, Assembly	1
47	11-1043	Label, Warning, Text	1
48	10-02025A	Label, Hot/Caliete w/Arrows Warning	1
49	95-07290029	Tank Head Assy, 16" DIA x 8" Stack	1
50	7-014832	Insulation, Tank Head, 16" OD x 8" ID	1
51	90-50045	Clip, Retaining U-Type	4
52	2-0053	Elbow, 1/2" JIC x 3/8" Fem, 90°	1
53	95-07290053	Retainer, Burner Insulation	1
54	90-19960	Screw, 3/8" x 1-1/4" Whiz Loc	4
55	7-01482	Insulation, Tank Bottom, 1" Blanket	1
56	95-07104955	Assembly, Frame, MS	1
57	90-19711	Screw, 1/4" x 1/2" HH NC, Whiz Loc	8
58	4-05088	Thermostat, Adjustable, 302°F	1
59	95-07290007	Tab, Outer Wrap	4
60	90-20231	Nut, Cage, 1/4" x 12 Gauge	8
61	90-2020	Nut, Cage, 3/8" x 12 Gauge	4
62	7-00028	Burner, Beckett, 230V AFG (3520)	1
	7-00009	Burner, AFG, 120V, F4 Cone (2015, 2310)	1
63	7-0101	Nozzle, Burner, 1.75 B 90° (3520)	1
	7-01244	Nozzle, Oil, HOL 1.00 A, 90° (2015, 2310)	1
64	90-20040	Nut, 3/8" Flange, Whiz Loc, NC	4
65	6-01011	Cord, Service, SEO, 16/4, Coleman	64"
66	6-0516	Strain Relief, 1/2" Metal, Two Screw	1
67	2-1010	Nipple, 1/4" x 2-1/2", Brass	1
68	2-99050	Filter, Parker Fuel/Oil/H_2O (10 Micron), Generic	1
69	2-1089	Hose Barb, 1/4" Barb x 1/4" Pipe, 90°	1
70	10-09003	Label, Cold Water Inlet	1
71	10-08017	Label, Intended for Outdoor Use	1
72	10-99078	Label, Motor Overload Reset, Lexan	1
73	2-01403	Bushing, Snap	1
74	6-01062	GFCI, 120V 15A, w/36' 12-3 Cord (2310)	1
	6-01060	GFCI, 120V 20A, w/36' 12-3 Cord (2015)	1
	6-01059	GFCI, 240V 1PH 30A, w/36' 10-3 Cord (3520)	1
75	10-08018	Label, Warning, Service Cord	1
76	10-9999	Label, Clear Lexan, 2-1/4" x 4-1/2"	1
77	6-05134	Cable, TY, 48"	2
78	95-07104827	Lever, Brake	1
79	95-07104828	Bracket, Brake Pad	1
80	95-07104829	Linkage, Brake	1
81	90-100472	Bolt, Carriage	4
82	90-2000	Nut, 1/4" ESNA	4
83	90-4000	Washer, 1/4"	12
84	7-01487	Insulation, Blanket, 18" x 52", Fiberglass	1
85	90-1006	Bolt, 5/16" x 3/4" NC	4
86	2-00742	Adapter, 1/2" x 1/2" Pipe	1
87	2-00575	Elbow, 3/8" 45°	1
88	2-00681	Bushing, 1/2" x 3/8"	1

CONTROL PANEL
EXPLODED VIEW

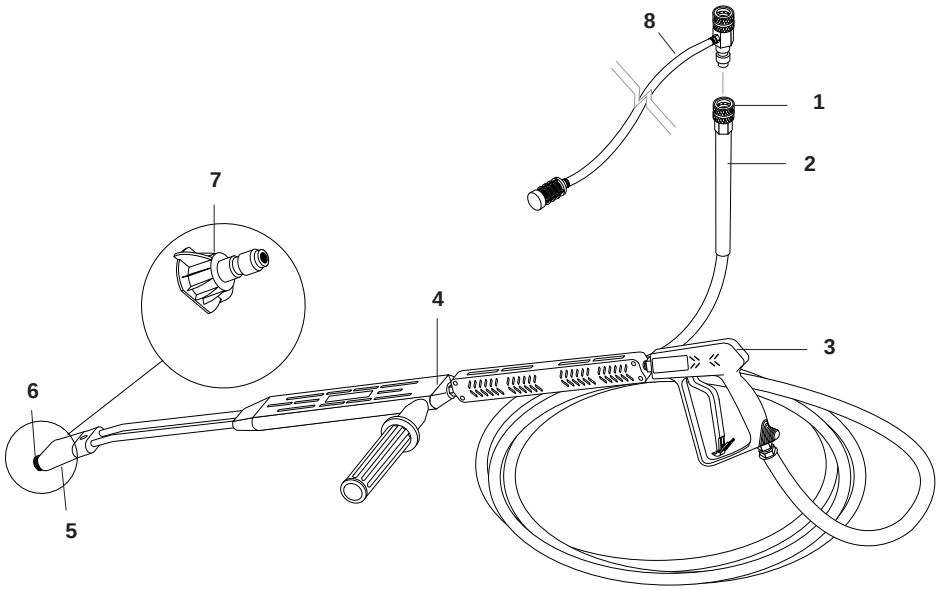


ITEM	PART NO.	DESCRIPTION	QTY
1	4-05088	Thermostat, Adjustable, 302°F	1
2	6-020201	Switch, 3 PS, 115V-230V, 1PH	1
3	95-07104957	Cover, Electric Box	1
4	11-0319	Label, Electric Box	1
5	90-1991	Screw, 10/32" x 1/2" BHSOC Blk	8
6	6-05181A	Locknut, 1/2"	2
7	90-2018	Nut, Cage, 10/32" x 16 Gauge	8
8	See Page 17	Nozzle	4
9	2-0103	Grommet, Rubber, Nozzle Holder	4
10	95-07104956	Box, Electric	1
11	6-05181A	Locknut, 1/2" (2015, 2310)	2
	6-05181	Locknut, 1/2" Conduit (3520)	2
12	6-05152	Strain Relief, STRT, LQ TITE Small (2015, 2310)	2

ITEM	PART NO.	DESCRIPTION	QTY
12	6-0522	Strain Relief, 12/4 Alum. (3520)	2
13	6-05152	Strain Relief, STRT LQ TITE, Small	2
14	6-01270	Conduit, Corrugated, Tubing, 1/4"	2 ft.
15	2-01403	Bushing, Snap, 5/8"	1
16	11-0317	Label, Control Panel	1
17	90-017	Nut, 10/32" Keps	4
18	90-1994	Screw, 10/32" x 1-1/4"	1
19	11-1042	Label, Ground	1
20	95-07104959	Panel, Control	1
	90-19711	▲ Screw, 1/4" x 1/2" HH, NC, Whiz Loc	4
	90-200012	▲ Nut, 1/4" Flange	4

▲ Not Shown

HOSE AND SPRAY GUN ASSEMBLY

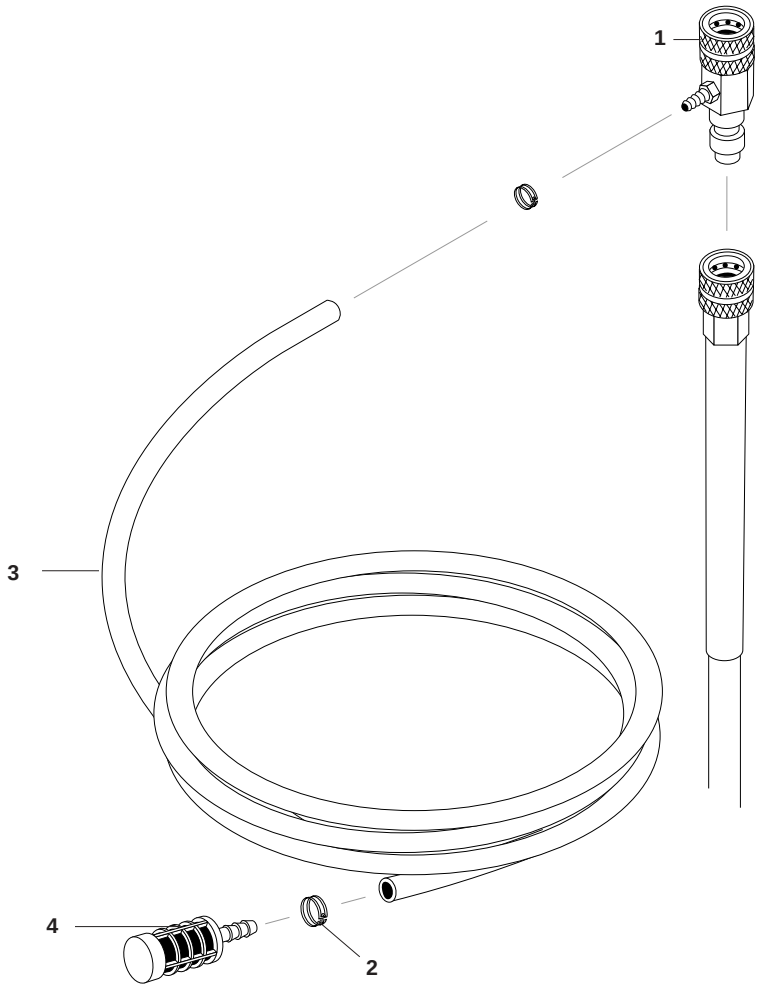


ITEM	PART NO.	DESCRIPTION	QTY
1	2-2002	Coupler, 3/8" Female	1
	2-0121	▲ Quick Coupler O-Ring LG	1
2	4-02093450BC	Hose, 50' x 3/8", 1 Wire, Blue, w/Coupler	1
3	4-01246	Spray Gun, Shutoff, AP 1000	1
4	4-0111341A	Wand, VP Zinc 1/4" w/Coupler, w/Soap Nozzle	1
	83-SSVPKIT	▲ AL Wand Repair Kit, Stainless Seat	1
5	4-06540	Brass Soap Nozzle Only, 1/8"	1
6	2-2001	Coupler, 1/4" Male	1
	2-0119	▲ Quick Coupler O-Ring Sm	1
7	4-12803000	Nozzle SAQMEG 0003, Red (2015)	1
	4-12803015	Nozzle, SAQMEG 1503, Yellow (2015)	1
	4-12803025	Nozzle SAQMEG 2503, Green (2015)	1
	4-12803040	Nozzle, SAQMEG 4003, White (2015)	1

ITEM	PART NO.	DESCRIPTION	QTY
7	4-12804000	Nozzle, SAQMEG 0004, Red (2310)	1
	4-12804015	Nozzle, SAQMEG 1504, Yellow (2310)	1
	4-12804025	Nozzle, SAQMEG 2504, Green (2310)	1
	4-12804040	Nozzle, SAQMEG 4004, White (2310)	1
	4-12805000	Nozzle, SAQMEG 0005, Red (3520)	1
	4-12805015	Nozzle, SAQMEG 1505 Yellow (3520)	1
	4-12805025	Nozzle, SAQMEG 2505, Green (3520)	1
	4-12805040	Nozzle, SAQMEG 4005, White (3520)	1
8	4-011184	Detergent Injector Assy, 3-5 GPM, 0.83 (3520)	1
	4-011183	Detergent Injector Assy, 2-3 GPM, 0.70" (2015, 2310)	1

▲ Not Shown

DOWNSTREAM INJECTOR ASSEMBLY



ITEM	PART NO.	DESCRIPTION	QTY
1	3-12021	Injector, Detergent, Non-Adjust #3 (3520)	1
	3-1202	Injector, Detergent, Non-Adjust #2 (2015, 2310)	1
2	2-9040	Clamp, Hose, UNI .46 - .54	2
3	4-02080000	Tube, 1/4" x 1/2", Clear Vinyl	6 ft.
4	2-1904	Strainer, 1/4" Hose Barb	1

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
BURNER WILL NOT LIGHT	Disconnected or short in electrical wiring	All wire contacts should be clean and tight. No breaks in wire.
	Burner motor thermal protector tripped	If tripped, check voltage, connections and extensions for cause. Check fuel pump shaft rotation for binding, causing motor to overheat.
	ON-OFF switch defective	Check continuity through burner switch.
	Heavy sooting on coil and burner, can cause interruption of air flow and shorting of electrodes	Clean as required.
	Improper electrode setting	Clean and test according to diagram in operator's manual.
	Fuel not reaching combustion chamber	Check fuel pump for proper flow. Check solenoid valve on machines with spray gun control for proper on-off flow switch.
	Fuel solenoid malfunction	Check by placing screwdriver inside coil then turn machine on, open spray gun and check for magnetic pull.
	Clogged burner nozzle	Replace.
	Water not turned on	Turn on water to activate burner pressure switch.
	Pressure switch malfunction	Remove, test for continuity and replace as needed.
MACHINE SMOKES	Improper fuel or water in fuel	Drain tank and replace contaminated fuel.
	Low fuel pressure	Adjust fuel pump pressure to specifications.
	Air leaks in fuel lines	Check fuel lines for leaks or air bubbles. Tighten or replace as needed.
	Plugged or dirty burner nozzle	Replace.
	Faulty burner nozzle spray pattern	Replace nozzle.
	Heavy accumulation of soot on coils and burner assembly	Remove coils and burner assembly. Clean thoroughly.
	Misaligned electrode	Realign electrodes to specifications.
	Fuel filter partially clogged	Replace as needed.
	Obstruction in smoke stack	Check for insulation blockage or other foreign objects.
	Soot build up on coils	Clean coils with soot remover.
	Lime build up in coils	Clean inside of coils using coil cleaner.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW WATER TEMPERATURE	Improper fuel or water in fuel	Drain fuel tank and replace with proper fuel.
	Low fuel pressure	Increase fuel pressure.
	Weak fuel pump	Check fuel pump temperature. Replace pump if needed.
	Fuel filter partially clogged	Replace as needed.
	Soot build up on coils	Clean coils with soot remover.
	Lime build up on coils	Clean inside of coils usings coil cleaner.
	Improper burner nozzle	Call technical service for proper size.
WATER TEMPERATURE TOO HOT	Incoming water to machine warm or hot	Lower incoming water temperature.
	Fuel pump pressure too high	Lower fuel pressure.
	Fuel pump defective	Replace fuel pump.
	Detergent line sucking air	Tighten all clamps. Check detergent line for holes.
	Defective high limit switch (thermostat)	Replace.
	Incorrect fuel nozzle size	Call technical service for proper size.
	Insufficient water supplied	Check GPM to machine.
	Restricted water flow	Check nozzle for obstruction, proper size.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW OPERATING PRESSURE	Faulty pressure gauge	Install new gauge.
	Insufficient water supply	Use larger garden hose; clean filter washer at water inlet.
	Old, worn or incorrect spray nozzle	Match nozzle number to machine and/or replace with new nozzle.
	Plumbing or hose leak	Check plumbing system for leaks. Retape leaks with teflon tape.
	Faulty or misadjusted unloader valve (where applicable)	Adjust unloader for proper pressure. Install repair kit when needed.
	Worn packing in pump	Install new packing kit.
	Fouled or dirty inlet or discharge valves in pump	Clean inlet or discharge valves.
	Worn inlet or discharge valves	Replace with valve kit.
DETERGENT NOT DRAWING	Air leak	Tighten all clamps. Check detergent lines for holes.
	Valve in the injector head may be blocked, dirty or damaged	Clean or replace valve in injector.
	Filler screen on detergent suction hose plugged	Clean or replace.
	Dried up detergent plugging metering valve	Disassemble and clean thoroughly.
	High viscosity of detergent	Dilute detergent to specifications.
	Hole in detergent line(s)	Repair hole.
	Low detergent level	Add detergent if needed.
	Discharge water temperature above 180°F.	Lower discharge water temperature.
PUMP RUNNING NORMALLY BUT PRESSURE LOW ON INSTALLATION	Pump sucking air	Check water supply and possibility of air seepage.
	Valves sticking	Check and clean or replace if necessary.
	Unloader valve seat faulty	Check and replace if necessary.
	Nozzle incorrectly sized	Check and replace if necessary (See serial plate for proper size).
	Worn piston packing	Check and replace in necessary.
FLUCTUATING PRESSURE	Valves worn	Check and replace if necessary.
	Blockage in valve	Check and replace if necessary.
	Pump sucking air	Check water supply and air seepage at joints in suction line.
	Worn piston packing	Check and replace if necessary.
PUMP NOISY	Air in suction line	Check water supply and connections on suction line.
	Broken or weak inlet or discharge valve springs	Check and replace if necessary.
	Excessive matter in valves	Check and clean if necessary.
	Worn bearings	Check and replace if necessary.

PREVENTATIVE MAINTENANCE

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Shark Pressure Washers dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

MAINTENANCE SCHEDULE		
Replace Fuel Lines		Annually
Pump Oil	Inspect	Daily inspect the oil level
	Change	After first 50 hours, then every 500 hours or annually
Clean Burner Filter		Monthly (More often if fuel quality is poor)
Remove Burner Soot		Annually
Burner Adjustment/Cleaning		Annually
Descale Coil		Annually (More often if required)
Replace High Pressure Nozzle		Every 6 months
Replace Quick Connects		Annually
Clean Water Screen/Filter		Weekly
Clean Float/Supply Tank		Every 6 months
Replace HP Hose		Annually if there is any sign of wear
Grease Motor		Every 10,000 hours
Replace Burner Nozzle		Annually

OIL CHANGE RECORD

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

STP PRESSURE WASHER

WARRANTY

SHARK LIMITED NEW PRODUCT WARRANTY
PRESSURE WASHERS

WHAT THIS WARRANTY COVERS

All SHARK PRESSURE WASHERS are warranted by SHARK to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period. This warranty applies to the original purchaser and is not transferable.

LIMITED LIFETIME PARTS WARRANTY:

Components manufactured by SHARK, such as frames, handles, coil wraps, float tanks, and belt guards. Forged brass pump manifold. All heating coils will have a three year warranty. Internal components on the oil-end of all pressure washer pumps will have a seven year warranty.

ONE YEAR PARTS WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts. Warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. SHARK cannot provide warranty on these items.

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale buildup, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, shop labor charges, field labor charges, or freight damage.

WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

While not required for warranty service, we request that you register your SHARK pressure washer by returning the completed registration card. In order to obtain warranty service on items, you must return the product to an Authorized SHARK Dealer, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized SHARK Dealer of the defect. The Authorized Dealer will file a claim, which must subsequently verify the defect. In most cases, the part must be returned to SHARK freight prepaid with the claim. For warranty service on components warranted by other manufacturers, the Authorized Dealer can help you obtain warranty service through these manufacturers' local authorized service centers.

LIMITATION OF LIABILITY

SHARK'S liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall SHARK'S liability exceed the purchase price of the product in question. SHARK makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** SHARK does not authorize any other party, including authorized Dealers, to make any representation or promise on behalf of SHARK, or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of SHARK products conforms to local codes. While SHARK attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product.

SHARK PRESSURE WASHERS
1-360-833-9100 • 1-800-771-1881 • www.shark-pw.com

Form #97-6153 • Revised 3/04 • Printed in U.S.A.